



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/598,090

08/17/2006

Hitoshi Nohno

70404.104/ha

9981

54072 7590 07/23/2010

SHARP KABUSHIKI KAISHA
C/O KEATING & BENNETT, LLP
1800 Alexander Bell Drive
SUITE 200
Reston, VA 20191

EXAMINER

KIM, HEE-YONG

ART UNIT

PAPER NUMBER

2621

NOTIFICATION DATE

DELIVERY MODE

07/23/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JKEATING@KBIPLAW.COM
uspto@kbiplaw.com
pmedley@kbiplaw.com

Office Action Summary	Application No. 10/598,090	Applicant(s) NOHNO ET AL.	
	Examiner HEE-YONG KIM	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/17/2006 and 9/17/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2621

DETAILED ACTION

Claim Objections

1. **Claim 22** is objected under 37 CFR 1.75 as being substantially duplicate of claim 21.

Regarding **claim 22**, the claim is same as claim 21 except a slight difference of wording.

Applicant is advised that should claim 1 be found allowable, claim 2 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

2. **Claim 36** is objected under 37 CFR 1.75 as being substantially duplicate of claim 35.

Regarding **claim 36**, the claim is same as claim 35 except a slight difference of wording.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2621

4. **Claims 21-24, 27-29, and 31-40** are rejected under 35 U.S.C. 102(b) as being anticipated by Makoto (JP 2003-16595).

Notice that the above reference is one of IDS and its machine translation to English is attached in this office action and used for the specification. For the figure, please refer to the original.

Regarding **claim 21**, Makoto discloses Driving Support Device. Makoto Specifically discloses An onboard display device (Fig.3 and Fig.4) for displaying an image outside of a vehicle inputted from an image capture section (cameras, 15a (back camera), 15b (left camera), 15c (right camera) Fig.1) on a display screen, the onboard display device comprising:

a display control section arranged to receive an image display instruction (Display left or right outside area image depending on turning left or right, S15 and S16 and S19, Fig.2, paragraph 19) for checking a rightward or a leftward (Fig.2:S15, Check whether turning left or right) outside area of the vehicle, and to cause the display screen to display a rightward outside area image (Fig.2:S19, If right turn, display right) or a leftward outside area image (Fig.2:S16, If left turn, display left) of the vehicle, the rightward outside area image or the leftward outside area image being captured by the image capture section;

and

an image processing section arranged to cause a manner in which the rightward outside area image is displayed to be different (left hand side is displayed on the left, and right hand side is displayed on the right into split screen, paragraph 9) from a manner in which the leftward outside area image is displayed.

Regarding **claim 22**, the claimed invention is not patentably distinct from claim 1. Therefore, it is rejected for the same reason as claim 1.

Regarding **claim 23**, Makoto discloses everything claimed as applied above (see claim 1). In addition, Makoto discloses wherein the image processing section is arranged to cause a position on the display screen of the rightward outside area image to be different (left hand side is displayed on the left, and right hand side is displayed on the right into split screen, paragraph 9) from a position on the display screen at which the leftward outside area image is displayed.

Regarding **claim 24**, Makoto discloses everything claimed as applied above (see claim 23). In addition, Makoto discloses wherein the image processing section is arranged to display the rightward outside area image rightward with respect to a reference position on the display screen, and to display the leftward outside area image leftward (left hand side is displayed on the left, and right hand side is displayed on the right into split screen, paragraph 9) with respect to the reference position (center of the screen) on the display screen.

Regarding **claim 27**, Makoto discloses everything claimed as applied above (see claim 21). In addition, Makoto discloses wherein the image processing device is arranged to display the rightward outside area image and the leftward outside area image in different frame shapes on the display screen (reversed method photography picture of left-hand side, paragraph 19).

Regarding **claim 28**, Makoto discloses everything claimed as applied above (see claim 21). In addition, Makoto discloses wherein the image processing section mirror-

Art Unit: 2621

reverses an image (reversed method photography picture of left-hand side, paragraph 19) produced by the image capture section and causes the rightward outside area image and the leftward outside area image to be displayed in a mirror-reversed form on the display screen.

Regarding **claim 29**, Makoto discloses everything claimed as applied above (see claim 21). In addition, Makoto discloses wherein the display control section is arranged to receive an image display instruction from a direction indicating device of the vehicle (Direction Indicator Switch 12, Fig.1), the direction indicating device indicating that the vehicle is going to make a right turn or a left turn (Fig.2:S15, Check whether turning left or right).

Regarding **claim 31**, Makoto discloses everything claimed as applied above (see claim 21). In addition, Makoto discloses wherein the display control section is arranged to receive an image display instruction (signal from GPS 21 to Controller 20, Fig.1) from a navigation information transmitting and receiving section (GPS 21, Fig.1) of the vehicle, the navigation information transmitting and receiving section obtaining information on a position of the vehicle (inherent in GPS), the information being sent from a navigation information transmitting station.

Regarding **claim 32**, Makoto discloses everything claimed as applied above (see claim 21). In addition, Makoto discloses further comprising: an input section arranged to adjust and control the manner (left hand side is displayed on the left, and right hand side is displayed on the right into split screen, paragraph 9) in which an image is displayed on the display screen.

Regarding **claim 33**, Makoto discloses everything claimed as applied above (see claim 21). In addition, Makoto discloses A vehicle (vehicle, paragraph 11), comprising the onboard display device according to Claim 21.

Regarding **claim 34**, Makoto discloses everything claimed as applied above (see claim 33). In addition, Makoto discloses further comprising: a switch (Direction Indicator Switch 12, Fig.1) arranged to output to the onboard display device an image display instruction to display the rightward outside area image or the leftward outside area image.

Regarding **claim 35**, Makoto discloses An onboard display device (Fig.3 and Fig.4) for displaying an image outside of a vehicle inputted from an image capture section (cameras, 15a (back camera), 15b (left camera), 15c (right camera), Fig.1) on a display screen, the onboard display device comprising:
a display control section arranged to receive an image display instruction signal (Fig.2: S12, Check whether it reached the turning point (winding part), paragraph 14-15) for checking a rear area (Fig.2: S13: display rear area if not reached turning point) of the vehicle, and cause the display screen to display either a rightward outside area image of a rightward outside area of the vehicle (Fig.2:S19, If right turn, display right) or a leftward outside area image of a leftward outside area of the vehicle based on a type of the instruction signal (Fig.2:S15, Check whether turning left or right), the image display instruction signal (Direction Indicator Switch 12, Fig.1) being output from the vehicle, and the rightward outside area image and the leftward outside area image being captured by the image capture section (cameras, 15a (back camera), 15b (left camera),

Art Unit: 2621

15c (right camera), Fig.1); and

an image processing section arranged to display the rightward outside area image to be displayed in a manner different (left hand side is displayed on the left, and right hand side is displayed on the right into split screen, paragraph 9) from a manner in which the leftward outside area image is displayed.

Regarding **claim 36**, the claimed invention is not patentably distinct from claim 35. Therefore, it is rejected for the same reason as claim 35.

Regarding **claim 37**, Makoto discloses everything claimed as applied above (see claim 21). In addition, Makoto discloses wherein the image display program causing a computer (microcomputer 10, Fig.1) to function as the display control section and the image processing section.

Regarding **claim 38**, the claimed invention is dependent on claim 37 and is a computer readable medium claim corresponding to the device claim 37. Therefore, it is rejected for the same reason as claim 37.

Regarding **claim 39**, the claimed invention is a method claim corresponding to the device claim 21. Therefore, it is rejected for the same reason as claim 21.

Regarding **claim 40**, the claimed invention is a method claim corresponding to the device claim 21. Therefore, it is rejected for the same reason as claim 21.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 25-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto in view of Nojima (US 5,764,139) (hereafter referenced as Nojima).

Regarding **claim 25**, Makoto discloses everything claimed as applied above (see claim 21). However Makoto fails to disclose wherein the image processing section is arranged to display a speedometer at substantially the same position on the display screen when the rightward outside area image is displayed and when the leftward outside area image is displayed.

In the analogous field of endeavor, Nojima discloses Information Display Apparatus for Vehicles. Specifically Nojima discloses displaying speedometer (Fig.10A,10B,10C) in the display with other information, in order to provide the important vehicle running condition to the driver (col.1, line 46-49).

Therefore, given this teaching, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Makoto by specifically providing the speedometer alongside with either left or right side area image. The Makoto driving support, incorporating the Nojima displaying speedometer alongside with either left or right side area image, has all the features of claim 25.

Regarding **claim 26**, the Makoto driving support, incorporating the Nojima displaying speedometer alongside with either left or right side area image, as applied to claim 25, discloses wherein the image processing section is arranged to fix the display a speedometer (Fig.10A,10B,10C) of the vehicle in front of a driver of the vehicle.

7. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto in view of Shimizu (US 7,366,595) (hereafter referenced as Shimizu).

Regarding **claim 30**, Makoto discloses everything claimed as applied above (see claim 21). However Makoto fails to disclose wherein the display control section is arranged to receive an image display instruction from a sensor of the vehicle which detects whether an outside object is present or absent around the vehicle.

In the same field of endeavor, Shimizu discloses Vehicle Drive Assist System. Specifically Shimizu) discloses wherein the display control section is arranged to receive an image display instruction (Fig.7) from a sensor (corner sensor 18, Fig.7) of the vehicle which detects (obstacle detection, col.29, line 19-27) whether an outside object is present or absent around the vehicle, in order to urge the driver to turn his attention to the obstructive object (col.29, line 26-27).

Therefore, given this teaching, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Makoto by specifically providing the obstacle detection system, in order to urge the driver to turn his attention to the obstructive object. The Makoto driving support, incorporating the Shimizu obstacle detection system, has all the features of claim 30.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tomida (US 2001/0,028,393) discloses Apparatus for Watching around vehicle. Lewellen (2003/0,137,586) discloses Vehicle Video Watching System and Method.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEE-YONG KIM whose telephone number is (571)270-3669. The examiner can normally be reached on Monday-Thursday, 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/598,090

Page 11

Art Unit: 2621

.

/HEE-YONG KIM/

Examiner, Art Unit 4192

/Andy S. Rao/

Primary Examiner, Art Unit 2621

July 19, 2010